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# The diagnosis and treatment of subependymal giant cell astrocytoma combined with tuberous sclerosis.

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## Abstract

**BACKGROUND:** Subependymal giant cell astrocytoma develops in a small proportion of tuberous sclerosis patients. There are still several controversies on the early diagnosis of the tumor, treatment of hydrocephalus, and timing of operation, etc.

**METHODS:** From September 1996 to April 2006, 17 patients were admitted in neurosurgical department of "Beijing Tiantan Hospital". The authors analyzed medical records and followed up every case.

**RESULTS:** There are 18 tumors out of 17 patients. One patient had double tumors. Sixteen patients except one underwent tumor resection 17 times. Fifteen tumors out of 17 were gross totally removed; two were partially removed. One patient died of brain infarction postoperatively. Three out of 13 patients with preoperative hydrocephalus still needed ventriculoperitoneal shunt after tumor resection. There was no recurrence after total resection.

**CONCLUSION:** Diagnosis of tumor should be made by clinical criteria. Serial follow-up is essential for a suspected perimonro lesion to find tumor growth earlier. When there is growth, tumor should be removed as soon as possible. Hydrocephalus will resolve in most cases after tumor resection, while external drainage is suitable for emergent cases. Transcallosal and transcortical approaches are both effective to resect the tumor. Tumor will not recur after total removal.

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